

**REMARKS**

By way of this preliminary amendment, claims 25-27, 31-36, 40-42, 48-50, 54-59, and 63-65 have been amended, claims 28-30 and 51-53 have been canceled without prejudice or disclaimer, and new claim 71 has been added. Therefore, claims 1-27, 31-50 and 54-71 are presently pending for consideration.

The specification has been amended to correct a minor typographical error.

By way of a filing made concurrently with this preliminary amendment, Applicant proposes to amend the drawings in order to make minor corrections to them. No new matter has been added.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

9 April, 2003

Date

Phillip J. Articola

Phillip J. Articola  
Registration No. 38,819

FOLEY & LARDNER  
Washington Harbour  
3000 K Street, N.W., Suite 500  
Washington, D.C. 20007-5109  
Telephone: (202) 672-5300  
Facsimile: (202) 672-5399

SHOULD ADDITIONAL FEES BE NECESSARY IN CONNECTION WITH THE FILING OF THIS PAPER, OR IF A PETITION FOR EXTENSION OF TIME IS REQUIRED FOR TIMELY ACCEPTANCE OF SAME, THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE DEPOSIT ACCOUNT NO. 19-0741 FOR ANY SUCH FEES; AND APPLICANT(S) HEREBY PETITION FOR ANY NEEDED EXTENSION OF TIME.

**MARKED UP VERSION SHOWING CHANGES MADE****Marked-Up Specification:****On page 1, the second full paragraph:**

Generally, the paging procedure of the RANAP protocol is performed as follows. That is, when a paging command is transmitted from a core network (CN) including a mobile switching center (MSC) to a radio network controller (RNC), the radio network controller, in response to the command, performs a paging processing for simultaneously calling a mobile station. In this case, if the range of common ID, that is, the number of mobile stations which the system accommodates, is large, a large amount of processes is incurred at the radio network controller. For this reason, reduction of the amount of processes has been a concern for years.

**Marked-Up Claims:**

25. (Amended) A paging system that performs a paging processing for simultaneously a mobile station [(300)] from a radio network controller [(200)] in response to a paging command [(14', 15', 16, or 17)] from a core network [(400 or 500)],

wherein [said radio network controller] comprises paging processing means (22', 21, 12, and 13) for performing said paging processing using one of a paging control (PCCH) and a dedicated control channel (DCCH) depending on whether or not a mobile switching center of said core network has the function of co-ordination a packet service and a circuit service] said paging command includes a search-not-required flag indicating whether a search for said common ID is required or not required.

26. (Amended) A paging system according to Claim 25, wherein said radio network controller comprises paging processing means for performing said paging processing using one of a paging control channel and a dedicated control channel depending on whether or not a mobile switching center of said core network has the function of coordinating a packet service and a circuit service, and

wherein said paging processing means searches for said common ID [(21)] if the mobile switching center of said core network does not have the function of co-ordinating the packet service and the circuit service.

27. (Amended) A paging system according to Claim 25, wherein said radio network controller comprises paging processing means for performing said paging processing using one of a paging control channel and a dedicated control channel depending on whether or not a mobile switching center of said core network has the function of coordinating a packet service and a circuit service, and

wherein said paging processing means performs said paging processing using one of the paging control channel and the dedicated control channel depending on the connection status between said core network and said radio network controller if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service.

31. (Amended) A paging system according to Claim [28] 25, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network does not have the function of co-ordinating a packet service and a circuit service.

32. (Amended) A paging system according to Claim [29] 26, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network does not have the function of co-ordinating a packet service and a circuit service.

33. (Amended) A paging system according to Claim [30] 27, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network does not have the function of co-ordinating a packet service and a circuit service.

34. (Amended) A paging system according to Claim [28] 25, wherein said search-not-required flag is set to "not required" if the mobile switching center of said core network has the function of co-ordinating a packet service and a circuit service and if the connection status between said core network and said radio network controller is connectionless.

35. (Amended) A paging system according to Claim [29] 26, wherein said search-not-required flag is set to "not required" if the mobile switching center of said core network has the function of co-ordinating a packet service and a circuit service and if the connection status between said core network and said radio network controller is connectionless.

36. (Amended) A paging system according to Claim [30] 27, wherein said search-not-required flag is set to "not required" if the mobile switching center of said core network has the function of co-ordinating a packet service and a circuit service and if the connection status between said core network and said radio network controller is connectionless.

40. (Amended) A paging system according to Claim [28] 25, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

41. (Amended) A paging system according to Claim [29] 26, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

42. (Amended) A paging system according to Claim [30] 27, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

48. (Amended) A paging method that performs a paging processing for simultaneously calling a mobile station [(300)] from a radio network controller [(200)] in response to a paging command [(14', 15', 16, or 17)] from a core network [(400 or 500)],

wherein [said paging method comprises a paging processing step (22', 21, and 13) of performing, in said radio network controller, said paging processing using one of a paging control channel (PCCH) and a dedicated control channel (DCCH) depending on whether a mobile switching center of

said core network has the function of co-ordinating a packet service and a circuit service] said paging command includes a search-not-required flag indicating whether a search for said common ID is required or not required.

49. (Amended) A paging method according to Claim 48, wherein said paging method comprises a paging processing step of performing, in said radio network controller, said paging processing using one of a paging control channel and a dedicated control channel depending on whether a mobile switching center of said core network has the function of co-ordinating a packet service and a circuit service, said paging processing step searches for said common ID [(21)] if the mobile switching center of said core network does not have the function of co-ordinating the packet service and the circuit service.

50. (Amended) A paging method according to Claim 48, wherein said paging method comprises a paging processing step [(22', 21, 12, and 13)] of performing, in said radio network controller, said paging processing using one of a paging control channel [(PCCH)] and a dedicated control channel [(DCCH)] depending on whether a mobile switching center of said core network has the function of co-ordinating a packet service and a circuit service, said paging processing step performs said paging processing using one of the paging control channel and the dedicated control channel [(12 and 13)] depending on the connection status between said core network and said radio network controller if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service.

54. (Amended) A paging method according to Claim [51] 48, wherein said search-not-required flag is set to "required" if the mobile switching center

of said core network does not have the function of co-ordinating the packet service and the circuit service.

55. (Amended) A paging method according to Claim [52] 49, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network does not have the function of co-ordinating the packet service and the circuit service.

56. (Amended) A paging method according to Claim [53] 50, wherein said search-not-required flag is set to "required", if the mobile switching center of said core network does not have the function of co-ordinating the packet service and the circuit service.

57. (Amended) A paging method according to Claim [51] 48, wherein said search-not-required flag is set to "not required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

58. (Amended) A paging method according to Claim [52] 49, wherein said search-not-required flag is set to "not required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

59. (Amended) A paging method according to Claim [53] 50, wherein said search-not-required flag is set to "not required" if the mobile switching

center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

63. (Amended) A paging method according to Claim [51] 48, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

64. (Amended) A paging method according to Claim [52] 49, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.

65. (Amended) A paging method according to Claim [53] 50, wherein said search-not-required flag is set to "required" if the mobile switching center of said core network has the function of co-ordinating the packet service and the circuit service and if the connection status between said core network and said radio network controller is connectionless.